Applicant: George Q. Daley et al. Attorney's Docket No.: 00108-147001

Serial No.: 09/982,223 Filed: October 18, 2001

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Currently amended) A vector comprising from 5' to 3':
- a) a packaging sequence;
- b) a heterologous insert sequence or restriction sites for insertion of a heterologous sequence; and
- c) a 3' long terminal repeat (LTR) sequence emprising consisting of a rare cutter restriction site selected from the group consisting of: a Not1 site, a SfiI site, a PacI site and a P1-SceI site, and combinations thereof,

wherein at least two codons of the packaging sequence are altered so as to reduce formation of fusion polypeptides encoded by the packaging sequence or a portion thereof, and the heterologous insert sequence.

- 2. (Original) The vector of claim 1, wherein at least two ATG codons of the packaging sequence have been altered.
- 3. (Original) The vector of claim 2, wherein the ATG initiation codon of the packaging sequence and at least one internal ATG codon of the packaging sequence have been altered.
- 4. (Original) The vector of claim 1, wherein the packaging sequence is a gag sequence.

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4...

5. (Original) The vector of claim 4, wherein the gag sequence is an amino-terminal portion of the gag gene.

- 6. (Original) The vector of claim 4, wherein the gag sequence comprises the nucleotide sequence of SEQ ID NO:2, or a portion thereof.
- 7. (Original) The vector of claim 3, wherein at least two internal ATG codons of the packaging sequence have been altered.
- 8. (Original) The vector of claim 3, wherein the internal codon which is altered is the codon at residues 1097-1099 of SEQ ID NO:1.
- 9. (Original) The vector of claim 3, wherein the internal codon which is altered is the codon at residues 1589-1591 of SEQ ID NO:1.
- 10. (Original) The vector of claim 3, wherein the internal codon at residues 1097-1099 and the internal codon at residues 1589-1591 of SEQ ID NO:1 have been altered.
- 11. (Original) The vector of claim 2, wherein one, two or all of the nucleotides of the ATG codon(s) have been altered.
- 12. (Original) The vector of claim 1, wherein the vector includes a heterologous insert sequence.

13.-23. (Cancel)

24. (Previously presented) The vector of claim 1, further comprising a bacterial replicon.

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25. (Previously presented) The vector of claim 24, wherein the bacterial replicon is less than 1.6 kb in size.

- 26. (Currently amended) The vector of claim [[26]] <u>24</u>, wherein the bacterial replicon further comprises a selectable bacterial marker sequence.
 - 27.-33. (Cancel)
- 34. (Previously presented) The vector of claim 26, wherein the bacterial marker sequence is a bleomycin marker sequence.
- 35. (Previously presented) The vector of claim 25, wherein the bacterial replicon is less than 1.4 kb in size.
- 36. (Previously presented) The vector of claim 35, wherein the bacterial replicon is less than 1.2 kb is size.
 - 37. -46. (Cancel)
 - 47. (Cancel)
 - 48.-49 (Cancel)